Title: Multi-output DC-DC Converter
Inventor(s): Takuya ISHII et al.
Exp. Mail No.: EV434910973US
Attorney Doc. No.: 208861.0494/494US
Cust. No.: 000570
(P33883-01)

FIG. 1

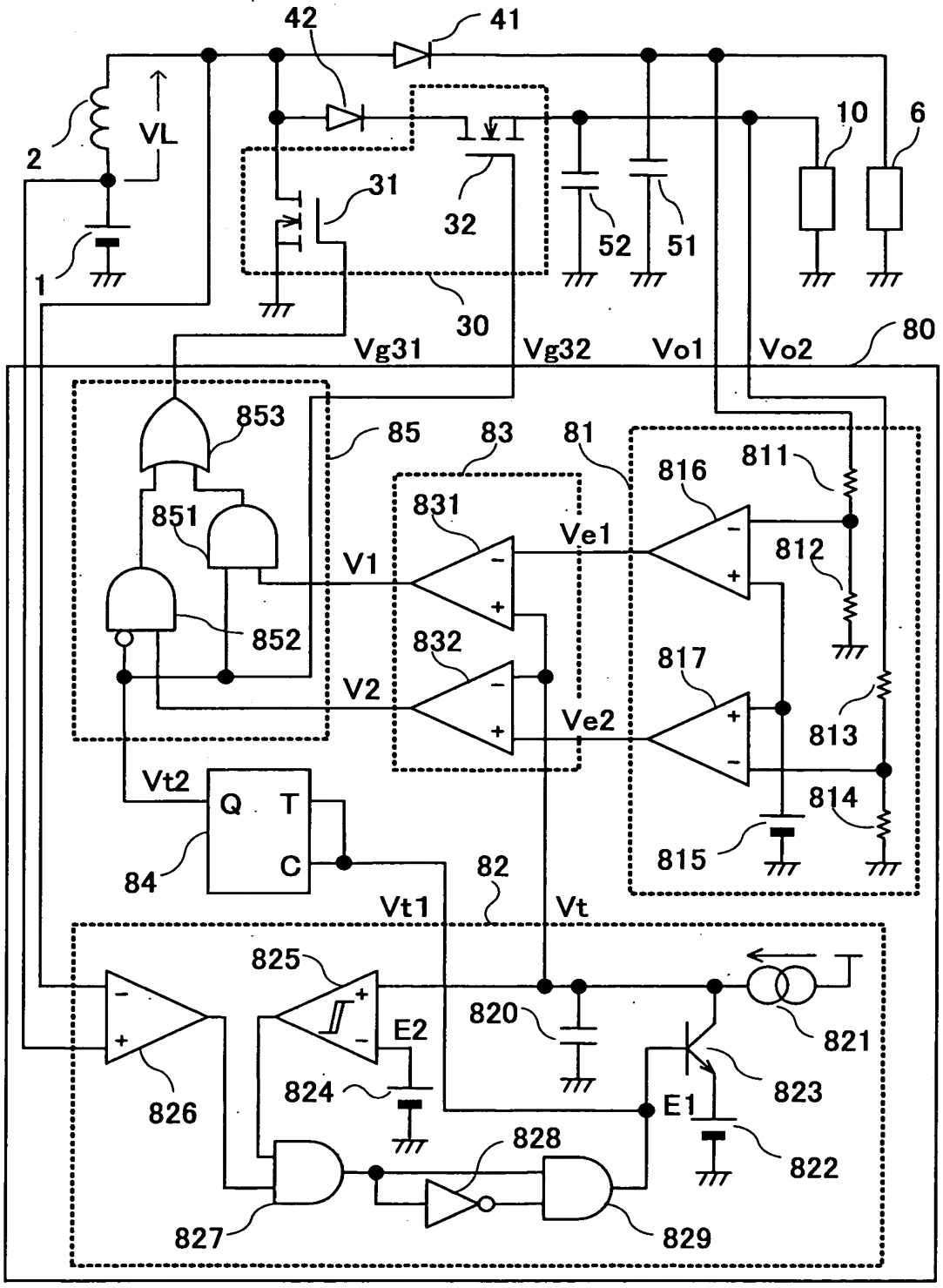

FIG. 2

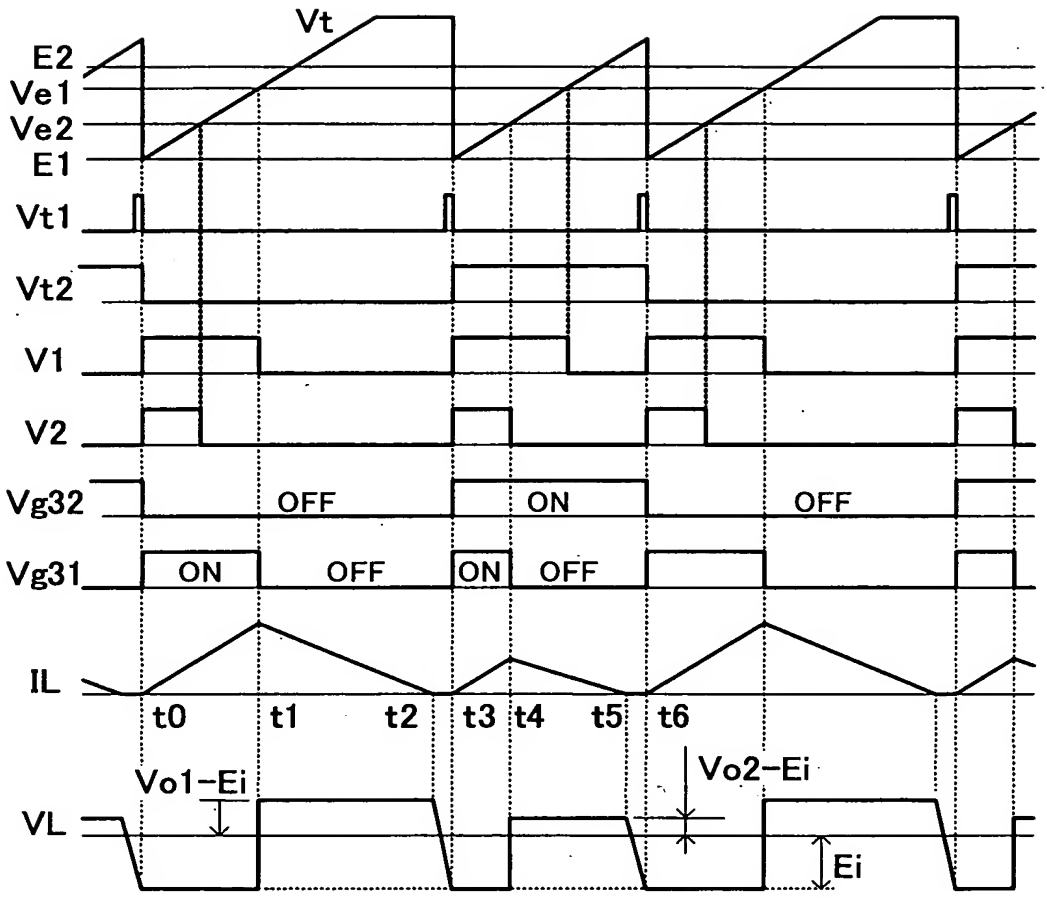
Vt
E2
Ve1
Ve2
E1
Vt1
Vt2
V1
V2
Vg32
OFF
ON
OFF
Vg31
ON
OFF
ON
OFF
IL
t0
t1
t2
t3
t4
t5
t6
Vo1−Ei
Vo2−Ei
VL
Ei

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FIG. 3

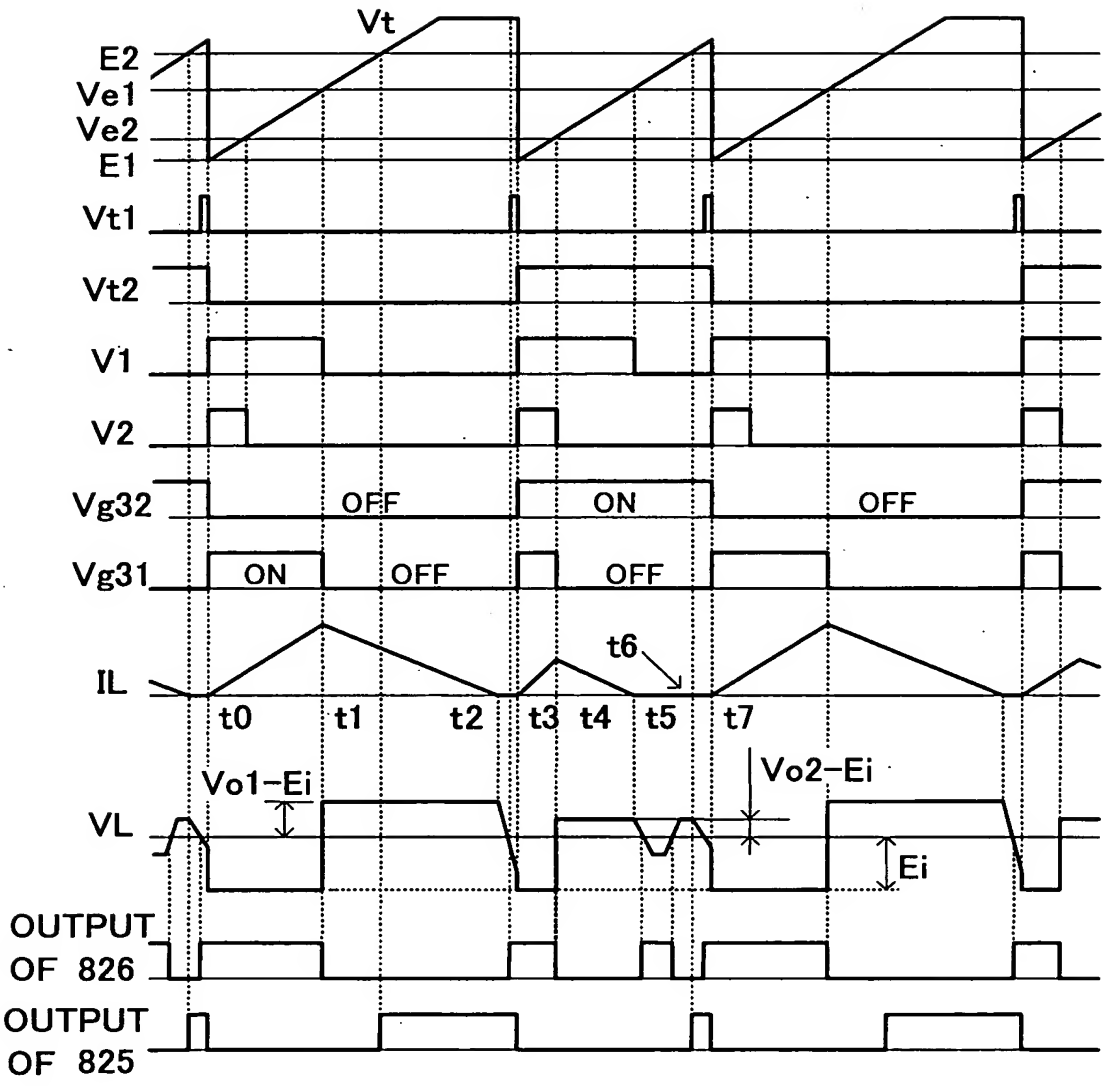

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FIG. 4

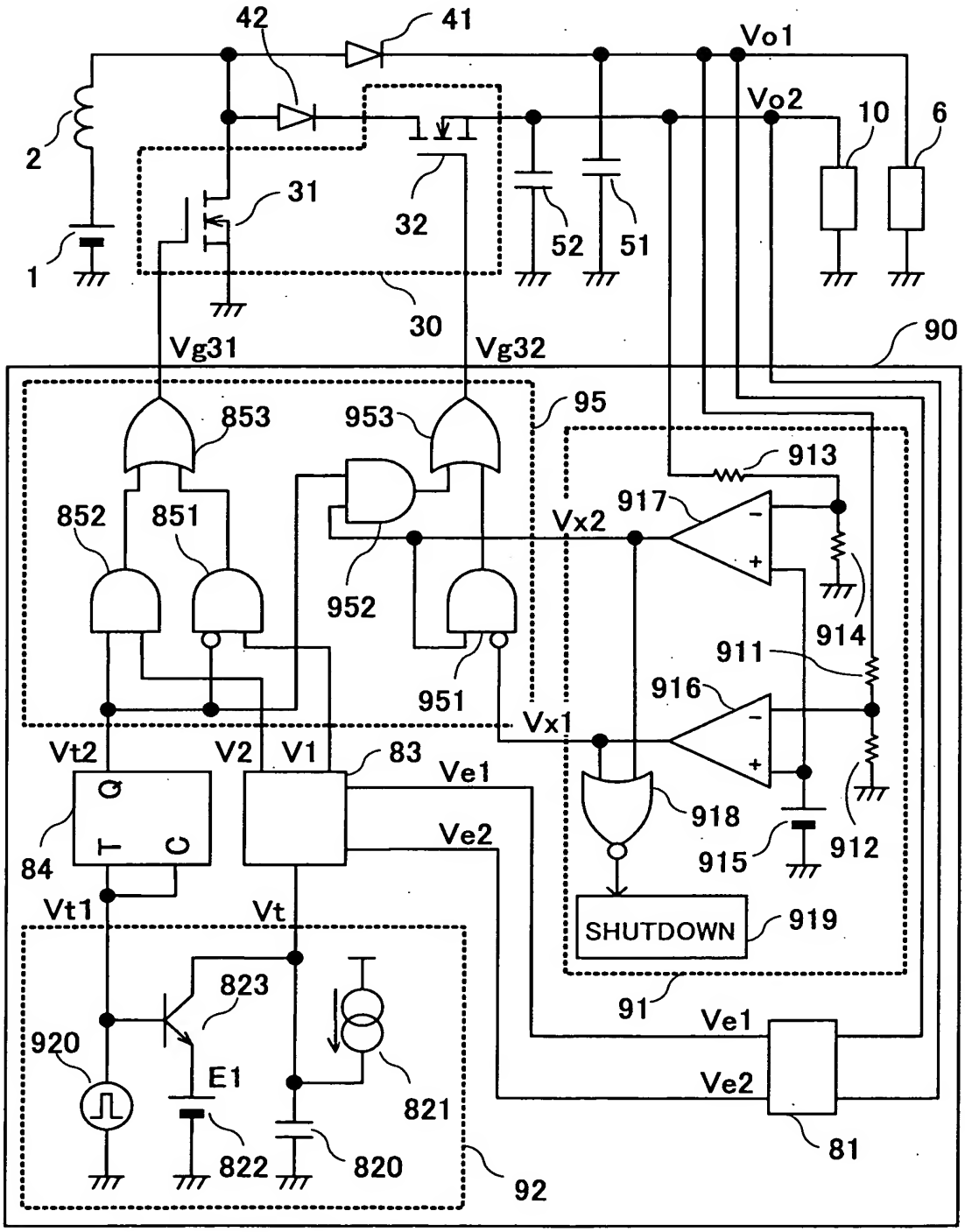

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FIG. 5

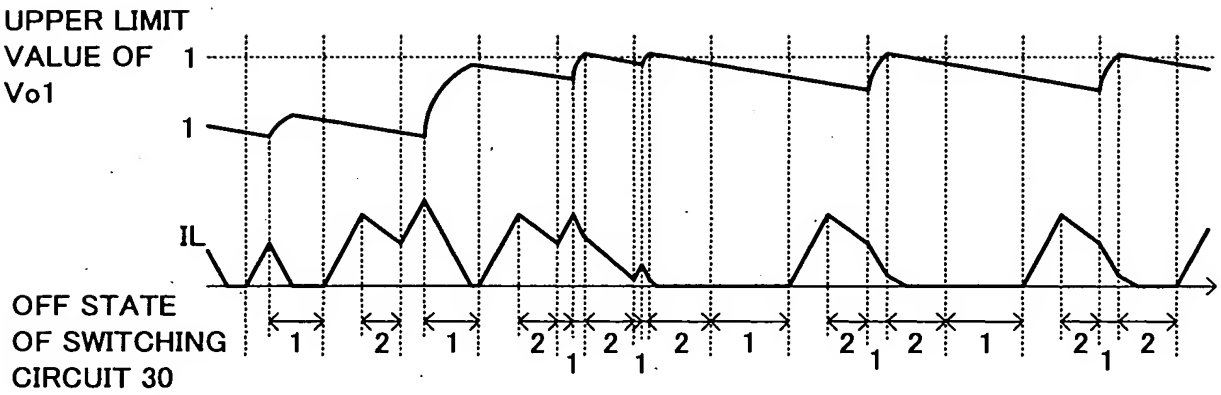

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FIG. 6

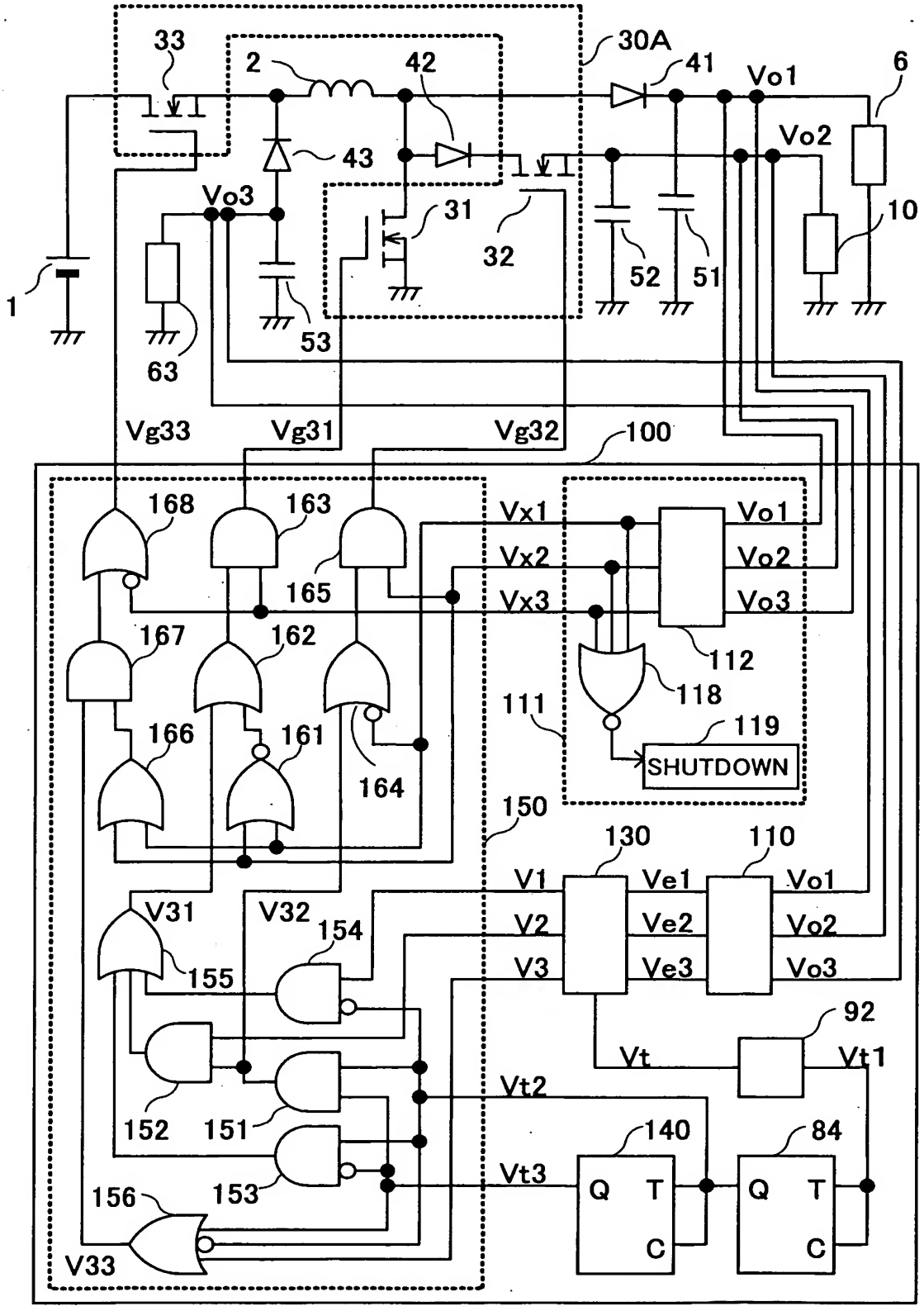

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FIG. 7A

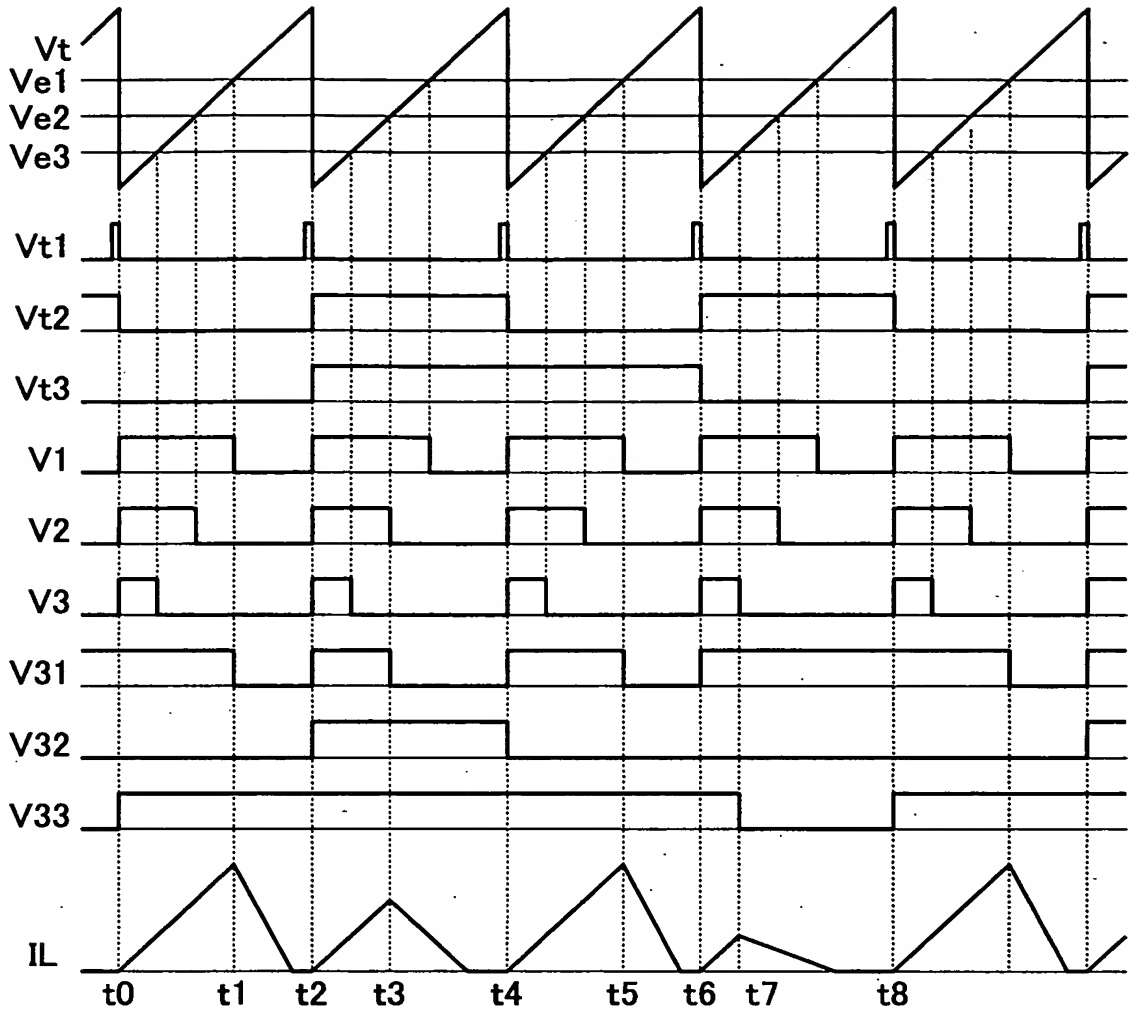

FIG. 7B

	I	II	III	IV	V	VI	VII	VIII
Vx1	H	H	H	H	L	L	L	L
Vx2	H	H	L	L	H	H	L	L
Vx3	H	L	H	L	H	L	H	L
Vg31	V31	L	V31	L	V31	L	H	L
Vg32	V32	V32	L	L	H	H	L	L
Vg33	V33	H	V33	H	V33	H	L	H

I : NORMAL OPERATION CONDITION
VIII : ABNORMAL CONDITION (SHUTDOWN)

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FIG. 8

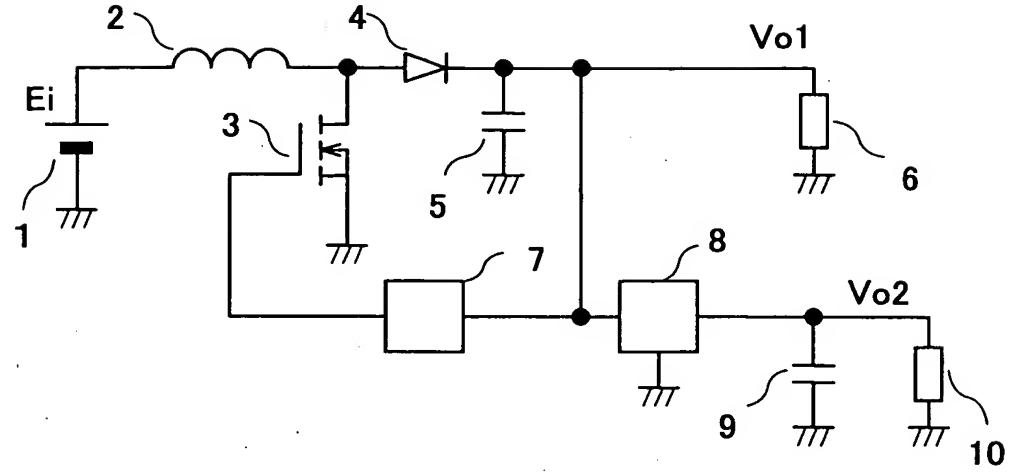

FIG. 9

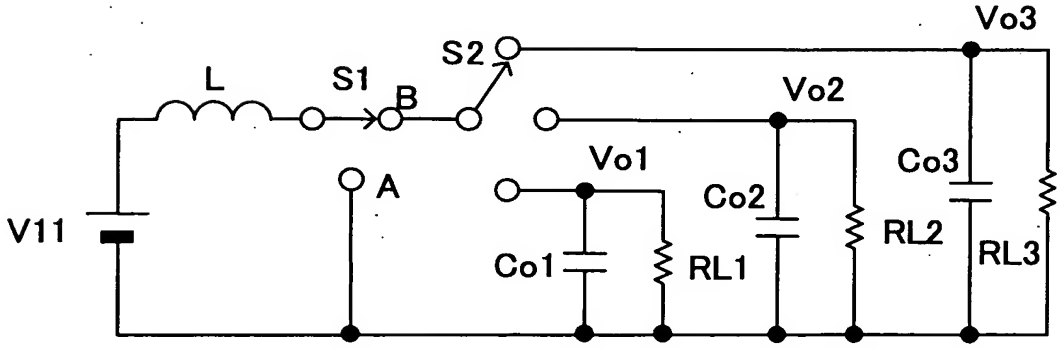

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FIG. 10

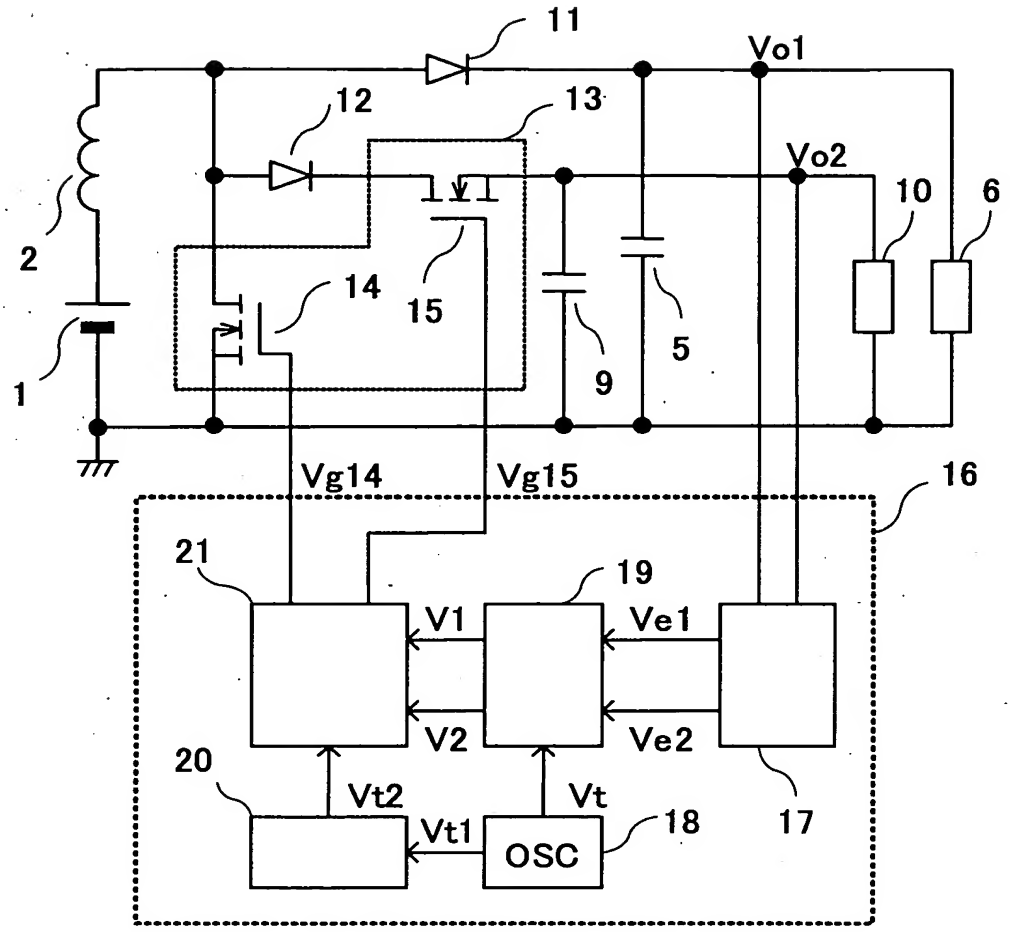


FIG. 11

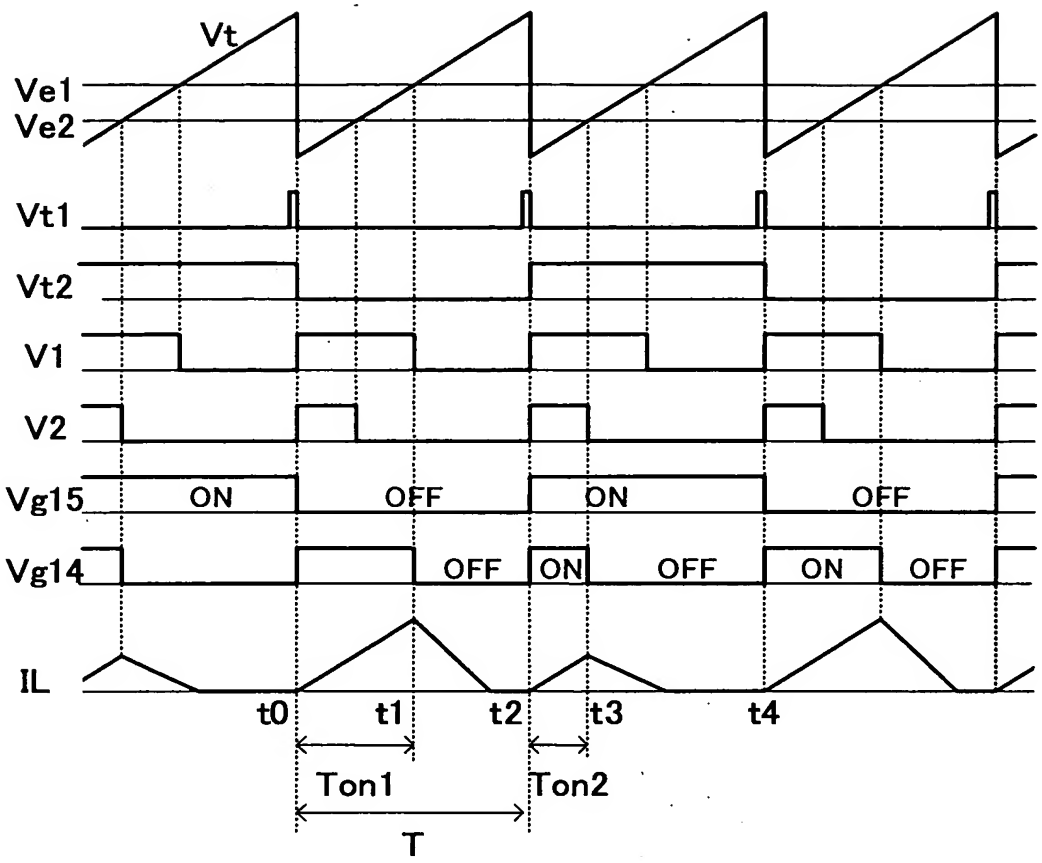
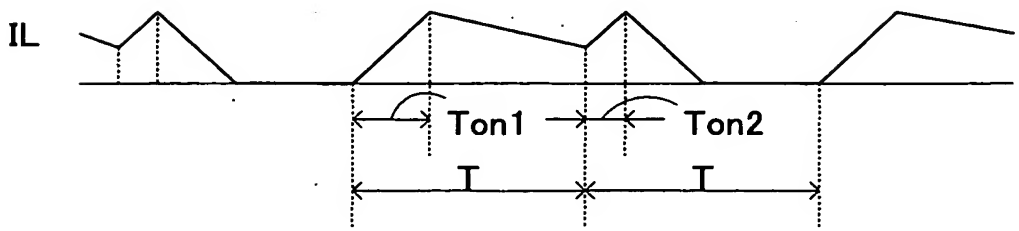

Vt
Ve1
Ve2
Vt1
Vt2
V1
V2
Vg15
ON
OFF
ON
OFF
Vg14
OFF
ON
OFF
ON
OFF
IL
t0
t1
t2
t3
t4
Ton1
Ton2
T

FIG. 12


IL
Ton1
Ton2
T
T